CLAIMS

What is claimed is:

Claim 1

A telemetry system for use in test firing a guided missile, where said missile has a plurality of configurations distinguished by a unique fuze and guidance control section combination, each of said configurations producing a plurality of characteristic telmetry signals reflecting the operation of said missile configuration and requiring correspondingly unique signal processing prior to being transmitted from said telemetry system, comprising:

common signal conditioning means, for receiving and processing said characteristic telemetry signals from the one of said unique fuze and guidance control section combinations utilized in a missile firing and for producing processed signals which reflect the operation of said utilized combination, said common signal conditioning means compatible for use with any of said plurality of missile configurations;

interface means, connecting said signal conditioning means with the one of said fuze and guidance control sections utilized in a missile firing, for receiving

and selectively routing said characteristic telemetry signals produced by said one utilized combination to predetermined locations in said signal conditioning means;

a commutator having said processed telemetry signals produced by said signal conditioning means as an input, said commutator producing a discrete sequence of signals in response to receipt of said processed telemetry signals, said discrete sequence of signals reflecting the operation of said utilized fuze and guidance section combination; and

means for transmitting said discrete sequence of signals produced by said commutator to a location remote from said missile.

Claim 2

The telemetry system according to claim 1 wherein said interface means comprises a plurality of programming connector cables equal in number to said plurality of missile configurations, each of said plurality of connector cables being compatible for use with and providing unique routing for the telemetry signals characteristic of and produced by one of said fuze and guidance section combinations, the appropriate one

of said plurality of programming connector cables being selected for use in a missile firing in accordance with the one of said plurality of missile configurations fired.

Claim 3

The telemetry system according to claim 2 wherein said signal conditioning means is a printed circuit card assembly connected to a first connector by a wire bundle and wherein each of said programming connector cables includes a connector compatible for mating with said first connector, the mating of said first connector with the compatible connector of a connector cable completing a plurality of electrical paths between a utilized fuze and guidance section and said circuit card assembly, a different portion of said electrical paths being utilized dependent on the one of said plurality of connector cables with which said first connector is mated, said circuit card including a plurality of subcircuits, a predetermined portion of said subcircuits being dedicated subcircuits utilized in conjunction with only one of said missile configurations and a predetermined portion of said subcircuits being common subcircuits utilized in conjunction with more than one of said missile configurations, each of said subcircuits receiving, in use, a telemetric input signal along at least one of said electrical paths

and processsing said received signal to reflect a facet of operation of one of said fuze and guidance section combinations.

Claim 4

The telemetry system according to claim 3 further comprising a mounting frame, an on-board energy source and a power supply, said commutator, energy source, power supply, signal conditioning means and means for transmitting said commutator produced signals all being mounted on said mounting frame and said commutator, said energy source, said power supply and said means for transmitting all being connected to said signal conditioning by pin connectors.

Claim 5

The telemetry system according to claim 4 wherein said energy source is a thermal battery and said commutator is a pulse-amplitude modulated commutator.